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QM02/0210

EXAMINER

KOCZO JR, M

ART UNIT

PAPER NUMBER

3748

12

DATE MAILED: 02/10/00

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on 1/10/00 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire THREE month(s), days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. (2) | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 25-27, 31-51 are pending in the application.
Of the above, claims 27, 32, 33, 37, 40, 41, 42, 45 are withdrawn from consideration. ^{48, 50, 51}
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 25, 26, 31, 34, 35, 36, 38, 39, 43, 44, 46, 47, 49 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable. ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed on _____, has been ☐ approved. ☐ disapproved (see explanation).
12. ☐ Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

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Applicant's election of the group I invention, without traverse, is acknowledged. It is noted that newly added claims 40, 41 and 48 are drawn to a subcombination which is deemed distinct from the other inventions in that the other combinations do not require a pressure regulator for their operation.

Applicant's addition of more claims furthermore necessitates a new election of species requirement as follows:

This application contains claims directed to the following patentably distinct species of the claimed invention: species A wherein plural compressors are in series as recited in claim 27, for example, and species B wherein plural compressors are in parallel, as recited in claim 35, for example.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 25, 26, 31, 34, 36, 38, 43, 44 and 46 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations

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of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Louis T. Isaf on February 4, 2000 a provisional election was made without traverse to prosecute the claims drawn to species B. Affirmation of this election must be made by applicant in replying to this Office action. Claims 27, 32, 33, 37, 40, 41, 42, 45, 48, 50 and 51 stand withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to non-elected inventions and species.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 25, 26, 34, 35, 36 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 is indefinite as to its scope because it is not clear what disclosed structure is readable as the "means for controlling operation of said compressor and said intake valves". It would appear that the compressor and the intake valves are actually controlled by separate means, which means should be recited separately in the claim (see also claim 34). The expression "selected from one or more of turbulence, density...." is improperly alternative. These characteristics should be recited in Markush form. In lines 1 and 2 from the bottom, each occurrence of "a" should read --said--.

In claim 26, it is not clear to what the flow control valves and the engine control mechanism are "common".

In claims 35 and 49, there is no antecedent basis for "the low pressure port".

Thorough revision of the claims is required in order to render them definite in form according to the statute.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 25, 34, 36 and 44, as can be understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Miller '934.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller '934 in view of Okimoto. The use of flow control valves in intake air conduits is well known as shown by Okimoto (see valves 15 and 30). In view of this teaching, it would have been obvious to provide the intake air conduits of Miller '934 with flow control valves.

Claims 31 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bricout in view of Miller '934. Bricout discloses the invention substantially as claimed. However, Bricout does not disclose an intake air cooler. Miller '934 discloses an intercooler 36 which increases the air density and therefore increases power output. In view of this teaching, it would have been obvious to provide the engine of Bricout with an intercooler.

Claim 38 is rejected under 35 U.S.C. 102(b) as being anticipated by either of Bricout or Cook.

Claim 39 is rejected under 35 U.S.C. 102(b) as being anticipated by USSR 1,247,573.

Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over either of Bricout or Cook in view of Miller '934. Bricout or Cook disclose the invention substantially as claimed.

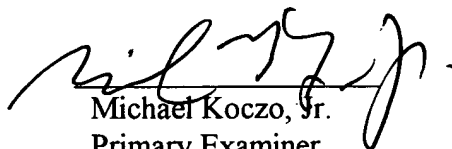
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However, these references do not disclose means for controlling the valves such that the compression ratio is less than the expansion ratio. Miller '934 discloses a turbocharged internal combustion engine having means for controlling the valves such that the compression ratio is less than the expansion ratio for improved thermal efficiency. In view of this teaching, it would have been obvious to provide the engines of Bricout or Cook with means for controlling the valves such that the compression ratio is less than the expansion ratio.

Claims 47 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over USSR 1,247,573 in view of Miller '934, as applied previously.

Claim 35 will be allowed if made self-contained and definite in form according to the statute.

The patents to Patterson, Miller '490, Du Bois, Hiereth and Asaka are cited to further show the state of the art.


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